

At page 128, line 14, replace "(SEQ ID NO: 11)" with --(SEQ ID NOS: 39, 52, and 53)--.

At page 128, line 14, replace "(SEQ ID NO: 12)" with --(SEQ ID NOS: 40, 41, and 42)--.

At page 145, line 2, replace "(79 amino acid motif)" with --(24 amino acid motif)--.

At page 176, line 13, replace "(SEQ IS NO: 49)" with --(SEQ ID NO: 49)--.

At page 177, line 12, replace "low" with --high--.

At page 178, line 17, replace "SEQ ID NOS: 211-363)" with --(SEQ ID NOS: 211-303)--.

At page 213, line 17, replace "51" with --86--.

At page 214, line 1, replace "364" with --304--.

Kindly insert the sequence listing provided herewith at the end of the specification.

In the Claims:

Cancel original claims 5, 6, and 23 without prejudice.

Amend claims 2 (second occurrence)-24 as follows.

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A8  
[2] 3. The method of claim 1 or 2, wherein said compound increases *daf-18* expression or activity and is therefore capable of increasing longevity of a cell or organism.

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[3] 4. The method of claim 1 or 2, wherein said compound decreases *daf-18* activity and is capable of treating an impaired glucose tolerance condition or obesity.

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[4] 5. (Amended) The method of claim 1 or 2, wherein said method is carried out in a transgenic [animal] nematode.

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[7] 8. (Amended) The method of claim [2]3, wherein said DAF-18 homologue is a human homologue.

[8] 2. (Amended) The method of claim [7]8, wherein said DAF-18 homologue is PTEN.

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[9] 10. A method for identifying a compound that is capable of ameliorating or delaying an impaired glucose tolerance condition or obesity, comprising contacting a biological sample with a candidate compound and assaying said sample for DAF-18-mediated lipid phosphatase activity, a decrease in said activity indicating a compound capable of ameliorating or delaying an impaired glucose tolerance condition or obesity.

[10] 11. A method for identifying a compound that is capable of increasing longevity of a cell or organism, comprising contacting a biological sample with a

candidate compound and assaying said sample for DAF-18-mediated lipid phosphatase activity, an increase in said activity indicating a compound capable of increasing longevity of a cell or organism.

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[11] 12. A method for identifying a compound that is capable of ameliorating or delaying an impaired glucose tolerance condition or obesity, comprising contacting a biological sample with a candidate compound and assaying said sample for PTEN-mediated lipid phosphatase activity, a decrease in said activity indicating a compound capable of ameliorating or delaying an impaired glucose tolerance condition or obesity.

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[12] 13. A method for identifying a compound that is capable of increasing longevity of a cell or organism, comprising contacting a biological sample with a candidate compound and assaying said sample for PTEN-mediated lipid phosphatase activity, an increase in said activity indicating a compound capable of increasing longevity of a cell or organism.

[13] 14. (Amended) The method of claim [9 or 11] 10 or 12, wherein said method further comprises assaying said compound in a cell which comprises a mutation in a *daf-18* gene and which expresses a mammalian DAF-18 homologue, a decrease in DAF-18 activity indicating a compound capable of treating an impaired glucose tolerance

condition or obesity.

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CB [14] 15. (Amended) The method of claim [10 or 12] 11 or 13, wherein said method further comprises assaying said compound in a cell which comprises a mutation in a *daf-18* gene and which expresses a mammalian DAF-18 homologue, an increase in DAF-18 activity indicating a compound capable of increasing longevity of a cell or organism.

[15] 16. (Amended) The method of claim [13] 14, wherein said mammalian DAF-18 homologue is human PTEN.

93 [16] 17. (Amended) The method of claim [14] 15, wherein said mammalian DAF-18 homologue is human PTEN.

[17] 18. A method of diagnosing an impaired glucose tolerance condition, obesity, or a propensity thereto in a patient, said method comprising analyzing the level of PTEN expression or activity in a sample isolated from said patient, whereby an increase in said level of PTEN expression or activity relative to a control sample is an indication of an impaired glucose tolerance condition, obesity, or a propensity thereto.

[18] 19. A method of diagnosing longevity in a patient, said method comprising analyzing the level of PTEN expression or activity in a sample isolated from said patient, whereby a decrease in said level of PTEN expression or activity relative to a control sample is an indication of decreased longevity.

[19] 20. A method of ameliorating or delaying the onset of an impaired glucose tolerance condition in a patient, said method comprising administering to said patient a therapeutically-effective amount of a compound that decreases PTEN expression or activity.

93 [20] 21. A method of increasing longevity in a patient, said method comprising administering to said patient a therapeutically-effective amount of PTEN polypeptide or a compound that increases PTEN expression or activity.

[21] 22. (Amended) The method of claim [19 or 20] 20 or 21, wherein said PTEN is human PTEN.

[22] 23. (Amended) A transgenic [non-human animal] nematode whose cells contain a transgene encoding a mammalian PTEN polypeptide.